THAT WHICH IS CLAIMED IS:

1. A method for detecting variations of the torque of a DC motor, characterized in that it comprises the operations of

generating a first signal (I_M) representing the current flowing in the motor;

multiplying said first signal (I_M) with a pre-established function producing a product signal;

generating a comparison signal to correspond to the slope of the product signal;

signaling a torque variation if said comparison signal surpasses a certain threshold.

2. The method of claim 1, wherein said comparison signal is the difference between said product signal and the moving average thereof over a certain time interval ($t-\Delta t1$; t).

3. The method of claim 2, wherein the duration ($\Delta t1$) of said time interval ($t-\Delta t1$; t) is greater than the maximum time constant of a torque to be ignored and smaller than the minimum time constant of a torque to be detected.

4. The method of claim 1, wherein said pre-established function is a saturated linear ramp function ($W_M\_virtual$), which is null when the motor is switched on and saturates when the start-up phase of the motor terminates.

5. The method of claim 3, wherein said duration ($\Delta t1$) ranges between $10 \div 200$ milliseconds.

6.   The method of claim 1, further comprising the operation of preliminarily filtering from noise said signal representing the current flowing in the motor before multiplying it for said pre-established function.

7.   The method of claim 6, characterized in that said filtered signal is generated by a low-pass filter whose time constant (T2) ranges between 0.5÷10 milliseconds.

8.   The method of claim 1, wherein said motor is accelerated during the start-up phase by supplying it with a linear saturating ramp voltage.

9.   A method for detecting a blocked condition of an electric DC motor, characterized in that it comprises the steps of

detecting an increase of the motor torque with the method as defined in any of claims from 1 to 8;

signaling a blocked condition when an increase of the motor torque is detected.

10.   A control circuit for detecting a torque variation of an electric DC motor, comprising

sensing means of the current flowing in the motor, generating a first signal (I_M);

first circuit means for generating a product signal of said first signal (I_M) by a pre-established function;

second circuit means for generating a comparison signal to correspond to the slope of the product signal;

a comparator of said comparison signal with a certain threshold, signaling a torque variation when said comparison signal surpasses said threshold.

11. The control circuit of claim 10, wherein said first circuit means comprise a low-pass filter that outputs a noise filtered replica of said first signal (I_M) towards said first circuit means.

12. The control circuit of claim 11, wherein said low-pass filter generates said filtered replica signal to correspond to a moving average of said first signal (I_M) and has a time constant (T2) that ranges between $0.5 \div 10$ milliseconds.

13. The control circuit of claim 10, wherein said second circuit means comprise a low-pass filter of said product signal, and an adder that generates said comparison signal as the difference between said product signal and the filtered replica thereof.

14. The control circuit of claim 13, wherein said low-pass filter generates said filtered replica of said product signal as the moving average thereof over a certain time interval (t-Δt1; t) whose duration (Δt1) is greater than the maximum time constant of a torque to be ignored and smaller than the minimum time constant of a torque to be detected.

15. The control circuit of claim 14, wherein said duration (Δt1) ranges between $10 \div 200$ milliseconds.

16. The control circuit of claim 13, wherein said first circuit means comprise
a waveform generator of a saturated linear ramp signal (W_M_virtual) which is null when the motor is switched on and saturates when the start-up phase of the motor finishes;

a multiplier input with said linear saturating ramp signal (W_M_virtual) and said first signal (I_M), generating a product signal.